

REMARKS

In view of the following discussion, the Applicants submit that none of the claims now pending in the application is made obvious under the provisions of 35 U.S.C. §103. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIMS 22, 24-35 AND 37-47 UNDER 35 U.S.C. § 103

The Examiner has rejected claims 22, 24-35 and 37-47 under 35 U.S.C. §103(a) as being made obvious by the Mahany patent (United States Patent No. 5,960,344, issued on September 28, 1999, hereinafter "Mahany") in view of the Keane patent (United States Patent No. 7,085,854, issued August 1, 2006, hereinafter "Keane") and further in view of the Brownrigg et al. patent application (United States Patent Application Publication No. 2004/0062224, published April 1, 2004, hereinafter "Brownrigg"). In response the Applicants have amended independent claims 22 and 35, from which claims 24-34 and 37-47 depend, in order to more clearly recite aspects of the present invention.

In particular, the Examiner's attention is respectfully directed to the fact that Mahany, Keane, and Brownrigg, singly or in any permissible combination, fail to teach, show or suggest a first user device that uses a first type of communication medium (i.e., a point-to-point medium in the Applicants' claims) to directly configure the use of a second, different type of communication medium (i.e., a shared medium in the Applicants' claims) by a second user device, where directly configuring the use of the second type of communication medium includes sending, by the first user device, a first contract to the second user device and a second contract to a third device, the first contract and the second contract together specifying one or more terms that the properties and contents of messages must satisfy in order to be exchanged between said second user device and said third device over the second type of communication medium, as recited by the Applicants' independent claims 22 and 35.

By contrast, Mahany, Keane, and Brownrigg all teach the use of a dedicated intermediary device to negotiate communications and use of communications media by

user devices. For instance, Mahany teaches the use of a wireless access point to route communications between networked devices ("Incoming messages received via the wired transceiver [of the access point] may be stored, displayed, and routed via the first channel radio or routed via the second channel radio to portable data terminals or other wireless devices operating within the cell(s) of one or more of the access point," Mahany, column 9, lines 31-35). Whereas the first and second channel radio may establish different communication links, the links are still of the same type of communication medium, and are not viewed as different types of communication media, as claimed by the Applicants. Keane teaches establishing tunnels between two gateways via tunnels to a mediation point/control center ("...a first gateway ... may establish ... a first encrypted information flow to the control system"; "... a second gateway ... may establish ... a second encrypted information flow to the control system"; "The control system may also enable a third encrypted information flow ... between the first gateway and the second gateway," Keane, column 13, lines 20-42). Brownrigg teaches the use of a transceiver as a passive repeater to rebroadcast packets ("A passive repeater is not a client, per se, but, rather, is a transceiver that receives and rebroadcasts packets," Brownrigg, paragraph 0094). Still, there is no teaching of the use of two different types of communication media, as claimed by the Applicants. Thus, none of Mahany, Keane, and Brownrigg teaches enabling a user device to directly configure use of different communications media by other user devices.

The Examiner submits in the Office Action that Keane teaches directly configuring, by a first device, a second device's use of a communication medium, because Keane teaches "providing a consent to enable the tunneling" (Office Action, Page 9). However, the Applicants respectfully submit that, even if one were to assume that providing consent to another device to enable a communication medium (e.g., enable tunneling) could be construed as "directly configuring" the use of the communication medium, it clearly cannot be construed to mean sending contracts to two separate devices, where together the contracts specify terms that the properties and contents of messages must satisfy in order to be exchanged between the devices

over a given communication medium, as claimed by the Applicants. Moreover, neither Mahany nor Brownrigg teaches this feature.

As discussed in the Applicants' Specification, one setting in which the claimed invention may be implemented is a classroom setting including a plurality of networked devices. In this exemplary setting, a first user device (e.g., a personal computing device) may be operated by a teacher, while a plurality of additional user devices are operated by students. In addition, the classroom setting may include networked resources such as printers, scanners, projectors, or the like. The teacher may use the first user device to control the way in which the user devices operated by the students communicate, for example by granting a user device operated by a student with a particular capability or with access to another networked device (e.g., another user device operated by another student or one of the networked resources). The teacher operates the first user device to grant this capability or access via a first, point-to-point communication medium. In one embodiment, the teacher may do this by beaming a first contract to the user device operated by the student and beaming a second contract to the other user device). For example, the first contract may permit the user device operated by the student to transmit a particular type of file over a second, shared communication medium, while the second contract permits the other user device to receive the particular type of file over the second communication medium. Thus, together, the first and second contracts together govern the use of the shared communication medium by the user devices. The teacher is therefore easily able to plan and perform a broad range of classroom interaction topologies using the first user device to directly shape these topologies.

In none of Mahany, Keane, or Brownrigg is it suggested that a user device uses a first type of communication medium (e.g., point-to-point, such as infrared) to directly configure or set up use of second type of communication medium (e.g., shared) by other user devices, where directly configuring the use of the second type of communication medium includes sending, by the first user device, a first contract to the second user device and a second contract to a third device, the first contract and the second contract together specifying one or more terms that the properties and contents

of messages must satisfy in order to be exchanged between said second user device and said third device over the second type of communication medium as claimed by the Applicants in independent claims 22 and 35.

Specifically, Applicants' independent claims 22 and 35, as amended, recite:

22. A method for managing communications over a plurality of devices connected to a network, the method comprising:

sending, by a first user device in said network, a first directed, one to one communication to a second user device in said network over a secure communication channel established between said first user device and said second user device using a first type of communication medium, the first type of communication medium being a point-to-point medium; and

configuring, by said first user device via said secure communication channel, a use of a second type of communication medium, different from said first type of communication medium, by at least said second user device, the second type of communication medium being a shared medium, wherein said configuring enables said second user device to broadcast messages to a third device in said network over said shared medium in a manner that allows said messages to be heard by other devices in said network within range of said second user device and said third device, wherein said configuring includes sending, by the first user device, a first contract to the second user device and a second contract to the third device, the first contract and the second contract together specifying one or more terms that properties and contents of said messages must satisfy in order to be exchanged between said second user device and said third device over said shared medium. (Emphasis added)

35. A computer-readable medium having stored thereon a plurality of instructions, the plurality of instructions including instructions which, when executed by a processor, cause the processor to perform the steps of a method for managing communications over a plurality of devices connected to a network, the method comprising:

sending, by a first user device in said network, a first directed, one to one communication to a second user device in said network over a secure communication channel established between said first user device and said second user device using a first type of communication medium, the first type of communication medium being a point-to-point medium; and

configuring, by said first user device via said secure communication channel, a use of a second type of communication medium, different from said first type of communication medium, by at least said second user device, the second type of communication medium being a shared medium, wherein said configuring enables said second user device to broadcast messages to a third device in said network over said shared medium in a manner that allows said

messages to be heard by other devices in said network within range of said second user device and said third device, wherein said configuring includes sending, by the first user device, a first contract to the second user device and a second contract to the third device, the first contract and the second contract together specifying one or more terms that properties and contents of said messages must satisfy in order to be exchanged between said second user device and said third device over said shared medium. (Emphasis added)

As discussed above, the Applicants' independent claims 22 and 35 clearly recite a first user device that uses a first type of communication medium (i.e., a point-to-point medium, such as infrared, in the Applicants' claims) to directly configure the use of a second, different type of communication medium (i.e., a shared medium in the Applicants' claims) by a second user device. Directly configuring involves sending, by the first user device, a first contract to the second user device and a second contract to a third device, such that the first contract and the second contract together specify one or more terms that the properties and contents of messages must satisfy in order to be exchanged between the second user device and the third device over the second type of communication medium. As discussed above, this allows a teacher to directly "beam" a contract to a specific student's user device over a point-to-point medium using another user device, where the beamed contract allows the student's user device to use a shared medium, for example for direct communications with another student's user device or with a classroom resource. As further discussed above, none of Mahany, Keane, and Brownrigg teaches these limitations. Therefore, the Applicants submit that independent claims 22 and 35 fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Dependent claims 24-34 and 37-47 depend, respectively, from claims 22 and 35 and recite additional features therefore. As such, and for at least the same reasons set forth above, the Applicants submit that claims 24-34 and 37-47 are not made obvious by the teachings of Mahany in view of Keane and further in view of Brownrigg. Therefore, the Applicants submit that dependent claims 24-34 and 37-47 also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

II. CONCLUSION

Thus, the Applicants submit that all of the presented claims now fully satisfy the requirements of 35 U.S.C. §103. Consequently, the Applicants believe that all of the presented claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 842-8110 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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Date



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